Allen Human Brain Atlas

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This is the online help for the ALLEN **Human Brain Atlas** web application.

The Dataset

The Allen Human Brain Atlas is a unique multi-modal atlas of the human brain, integrating anatomic and genomic information and coupled with a suite of visualization and data mining tools.

Key features:

- Microarray data providing an "all genes, all structures" survey in multiple adult control brains
    - Genome-wide coverage - over 62,000 gene probes per expression profile
    - Comprehensive anatomic coverage - approximately 500 samples per hemisphere across cerebral, cerebellar and brainstem structures
    - Mapped with histology into unified 3-D anatomic framework based on MRI
    - Anatomic and gene-based search with options for comparing among structures or donors
    - Heat map and other viewing options, as well as files available for download
- *In situ* hybridization image data comprising multiple data sets from targeted studies covering selected genes in specific brain regions
    - Subcortex study examining 55 genes across subcortical regions and 10 additional genes in hypothalamus in one male and one female donor
    - Cortex Study surveying 1,000 genes in visual and temporal cortex in multiple adult control brains
    - Schizophrenia Study of 60 genes in dorsolateral prefrontal cortex of over 50 control and schizophrenia cases
    - Autism Study of 25 genes in frontal, temporal and occipital cortical regions of 11 control and 11 autism cases
    - Neurotransmitter Study characterizing expression of selected neurotransmitter system genes in major cortical and subcortical areas of adult human brain
- MRI data for brains used for all microarray and some ISH analyses
    - Multi-planar viewer for structural MRI
    - T1, T2 and DTI files for download
- Brain Explorer® 3-D viewer for interactive viewing of brain anatomy and gene expression distribution, including inflated cortical surface views

For complete details please see the Whole Brain Microarray and *In situ* hybridization white papers on our Documentation page.